

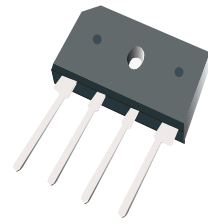
# Glass Passivated Bridge Rectifiers

## GBU15005-G Thru. GBU1510-G

Reverse Voltage: 50 to 1000V

Forward Current: 15.0A

RoHS Device

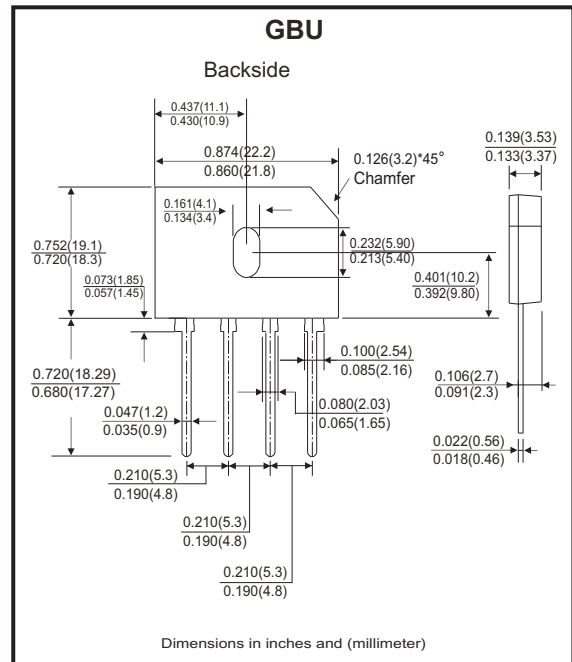


### Features

- Surge overload rating -240 amperes peak.
- Ideal for printed circuit board.
- UL recognized file # E349301 

### Mechanical Data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: Molded plastic, GBU
- Mounting position: Any
- Weight: 3.91 grams (approx.).



### Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
Single phase, half wave ,60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%

| Parameter                                                                                          | Symbol          | GBU 15005-G | GBU 1501-G | GBU 1502-G | GBU 1504-G | GBU 1506-G | GBU 1508-G | GBU 1510-G | Unit             |
|----------------------------------------------------------------------------------------------------|-----------------|-------------|------------|------------|------------|------------|------------|------------|------------------|
| Maximum Recurrent Peak Reverse Voltage                                                             | $V_{RRM}$       | 50          | 100        | 200        | 400        | 600        | 800        | 1000       | V                |
| Maximum RMS Voltage                                                                                | $V_{RMS}$       | 35          | 70         | 140        | 280        | 420        | 560        | 700        | V                |
| Maximum DC Blocking Voltage                                                                        | $V_{DC}$        | 50          | 100        | 200        | 400        | 600        | 800        | 1000       | V                |
| Maximum Average Forward (With heatsink Note2) Rectified Current @Tc=100°C (without heatsink)       | $I_{AV}$        | 15.0<br>3.2 |            |            |            |            |            |            | A                |
| Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method) | $I_{FSM}$       | 240         |            |            |            |            |            |            | A                |
| Maximum Forward Voltage at 7.5A DC                                                                 | $V_F$           | 1.0         |            |            |            |            |            |            | V                |
| Maximum DC Reverse Current @Tj=25°C At Rate DC Blocking Voltage @Tj=125°C                          | $I_R$           | 10.0<br>500 |            |            |            |            |            |            | $\mu A$          |
| I <sup>2</sup> T Rating for Fusing(t<8.3ms)                                                        | $I^2t$          | 239         |            |            |            |            |            |            | A <sup>2</sup> s |
| Typical Junction Capacitance Per Element (Note 1)                                                  | $C_J$           | 70          |            |            |            |            |            |            | pF               |
| Typical Thermal Resistance                                                                         | $R_{\theta JC}$ | 2.2         |            |            |            |            |            |            | °C/W             |
| Operating Temperature Range                                                                        | $T_J$           | -55 to +150 |            |            |            |            |            |            | °C               |
| Storage Temperature Range                                                                          | $T_{STG}$       | -55 to +150 |            |            |            |            |            |            | °C               |

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Device mounted on 100mm\*100mm\*1.6mm Cu plate heatsink.

Company reserves the right to improve product design , functions and reliability without notice.

REV: D

## Rating and Characteristics Curves (GBU15005-G Thru. GBU1510-G)

Fig.1 - Derating Curve Output Rectified Current

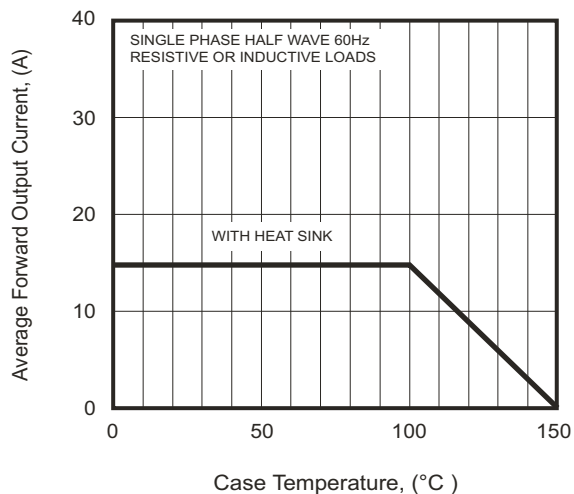


Fig.2 - Max. Forward Surge Current

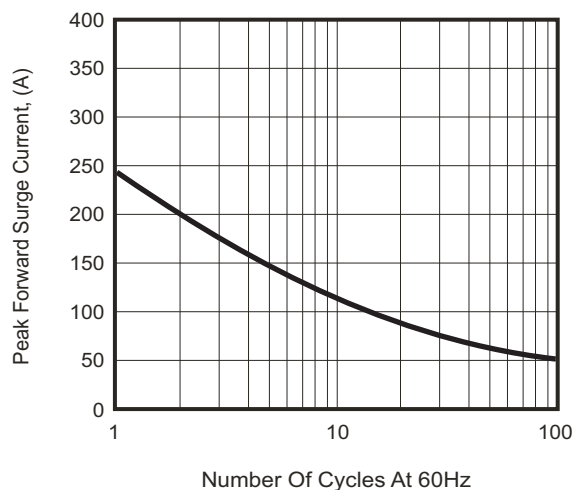


Fig.3 - Typical Forward Characteristics

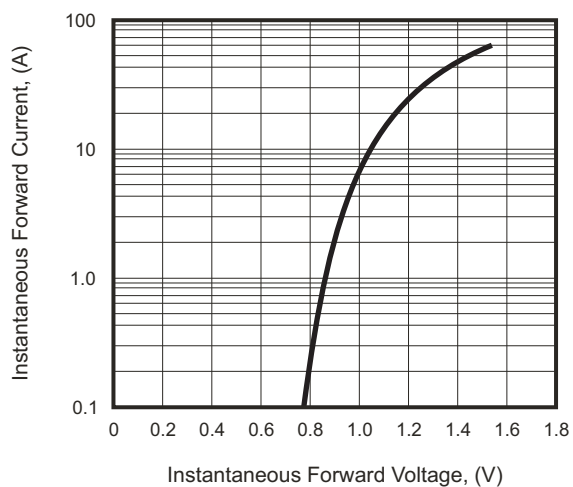
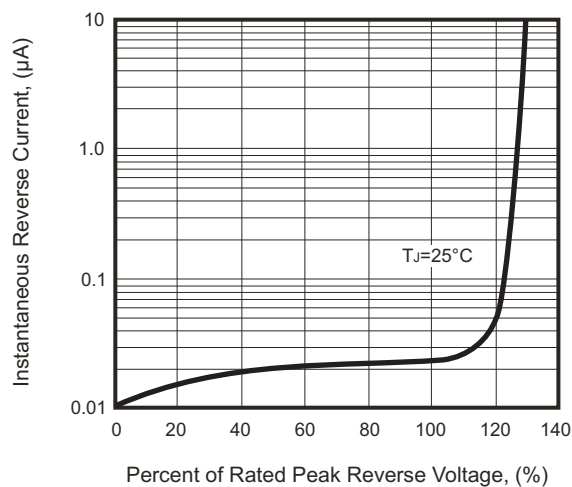
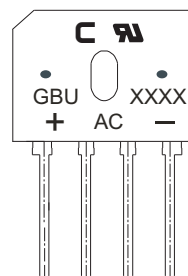


Fig.4 - Typical Reverse Characteristics



## Marking Code

| Part Number | Marking code |
|-------------|--------------|
| GBU15005-G  | GBU15005     |
| GBU1501-G   | GBU1501      |
| GBU1502-G   | GBU1502      |
| GBU1504-G   | GBU1504      |
| GBU1506-G   | GBU1506      |
| GBU1508-G   | GBU1508      |
| GBU1510-G   | GBU1510      |



XXXX / XXXXX = Product type marking code  
C = Comchip Logo

## Standard Packaging

| Case Type | TUBE PACK       |                   |
|-----------|-----------------|-------------------|
|           | TUBE<br>( pcs ) | Carton<br>( pcs ) |
| GBU       | 20              | 1,000             |